

TITLE

Process for preparing imidazoquinolinamines

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10/624,014

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FILE 'CAPLUS' ENTERED AT 10:48:10 ON 12 JAN 2004
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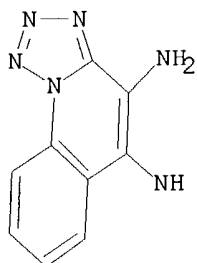
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FILE COVERS 1907 - 12 Jan 2004 VOL 140 ISS 3
FILE LAST UPDATED: 11 Jan 2004 (20040111/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

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L2 STR



G1 NH2,NO2

Structure attributes must be viewed using STN Express query preparation.

L3 4 SEA FILE=REGISTRY SSS FUL L2

L4 3 SEA FILE=CAPLUS L3

=> d 14 1-3 ibib abs hitstr

L4 ANSWER 1 OF 3 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 2002:449684 CAPLUS

DOCUMENT NUMBER: 137:33299

TITLE: Preparation of heterocyclic ether substituted imidazoquinolines as immune response modulators for treatment of viral and neoplastic diseases

INVENTOR(S): Charles, Leslie J.; Dellaria, Joseph F.; Griesgraber, George W.; Heppner, Philip D.; Manske, Karl J.; Mickelson, John W.; Rice, Michael J.

PATENT ASSIGNEE(S): 3M Innovative Properties Company, USA

SOURCE: PCT Int. Appl., 119 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

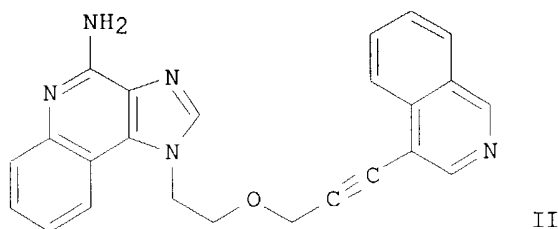
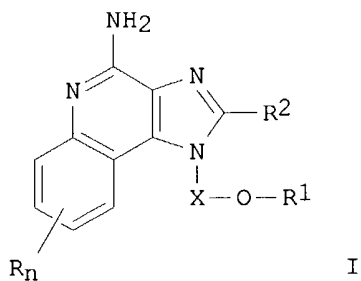
LANGUAGE: English

10/624,014

FAMILY ACC. NUM. COUNT: 11
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002046193	A2	20020613	WO 2001-US46704	20011206
WO 2002046193	A3	20030227		
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, VZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ			
RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
AU 2002030618	A5	20020618	AU 2002-30618	20011206
US 2003065005	A1	20030403	US 2001-11921	20011206
US 6664260	B2	20031216		
EP 1339715	A2	20030903	EP 2001-990852	20011206
R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR			
BR 2001016047	A	20030930	BR 2001-16047	20011206
EE 200300271	A	20031015	EE 2003-271	20011206
NO 2003002596	A	20030606	NO 2003-2596	20030606
PRIORITY APPLN. INFO.:			US 2000-254218P	P 20001208
			WO 2001-US46704	W 20011206

OTHER SOURCE(S): MARPAT 137:33299
GI



AB Title (tetrahydro)imidazoquinolines that contain ether and heterocyclyl or heteroaryl functionality at the 1-position [I; wherein X = CHR₃, CHR₃-alkyl, or CHR₃-alkenyl; R = independently alkyl, alkoxy, OH, halo, or CF₃; R₁ = heteroaryl, heterocyclyl, R₄-heteroaryl, or R₄-heterocyclyl; R₂

= H, alkyl, alkenyl, (hetero)aryl, heterocyclyl, alkyl-Y-alkyl; alkyl-Y-alkenyl, or alkyl-Y-aryl in which the alkyl and alkenyl groups may be substituted; R3 = independently H or alkyl; R4 = alkyl or alkenyl, which may be interrupted by one or more O groups; Y = independently O or S(O)O-2; n = 0-4; or their pharmaceutically acceptable salts] were prepd. as immune response modifiers which can induce the biosynthesis of various cytokines. For example, 2-(1H-imidazo[4,5-c]quinolin-1-yl)-1-ethanol was treated with NaOH and propargyl bromide in CH2Cl2 to give the ether. Oxidization using 3-chloroperoxybenzoic acid afforded the 5N-oxide, which was reacted with trichloroacetyl isocyanate and hydrolyzed to give the amine. BOC protection, followed by addn. of 4-bromoisquinoline in the presence of Pd(PPh3)2Cl2 and TEA in DMF and treatment with TFA under nitrogen, afforded II. II induced interferon (IFN) and tumor necrosis factor .alpha. (TNF-.alpha.) in human blood cell systems with at concns. of 0.12 .mu.M and 3.33 .mu.M, resp. Thus, I are useful in the treatment of a variety of conditions, including viral and neoplastic diseases (no data).

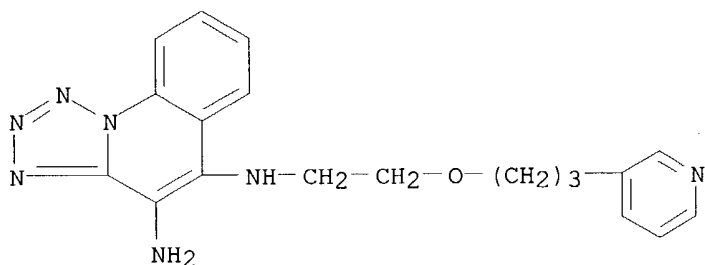
IT **436158-53-1P**

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(intermediate; prepn. of heterocyclic ether substituted imidazoquinolines as immune response modulators for treatment of viral and neoplastic diseases)

RN 436158-53-1 CAPLUS

CN Tetrazolo[1,5-a]quinoline-4,5-diamine, N5-[2-[3-(3-pyridinyl)propoxy]ethyl]- (9CI) (CA INDEX NAME)



L4 ANSWER 2 OF 3 CAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1998:31310 CAPLUS

DOCUMENT NUMBER: 128:102088

TITLE: Process for preparing 1H-imidazo[4,5-c]quinolin-4-amines

INVENTOR(S): Gerster, John F.; Lindstrom, Kyle J.

PATENT ASSIGNEE(S): Minnesota Mining and Manufacturing Co., USA

SOURCE: PCT Int. Appl., 39 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9748704	A1	19971224	WO 1996-US16972	19961022
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TR, TT, UA, UG, UZ, VN, AM,				

AZ, BY, KG, KZ, MD, RU, TJ, TM
 RW: KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR,
 IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML,
 MR, NE, SN, TD, TG

US 5741908	A	19980421	US 1996-673712	19960621
CA 2257846	AA	19971224	CA 1996-2257846	19961022
AU 9739565	A1	19980107	AU 1997-39565	19961022
AU 721036	B2	20000622		
EP 912565	A1	19990506	EP 1996-946380	19961022
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, NL, SE, PT, IE, FI				
NZ 333169	A	20000825	NZ 1996-333169	19961022
JP 2000512995	T2	20001003	JP 1998-502898	19961022
US 5998619	A	19991207	US 1998-61401	19980416
NO 9806002	A	19981218	NO 1998-6002	19981218
KR 2000016783	A	20000325	KR 1998-710393	19981218
US 6150523	A	20001121	US 1999-375587	19990817
US 6437131	B1	20020820	US 2000-678192	20001004
US 2002188127	A1	20021212	US 2002-180678	20020626
US 6534654	B2	20030318		
US 2003130516	A1	20030710	US 2003-352606	20030128
US 6613902	B2	20030902		
US 2003153762	A1	20030814	US 2003-360210	20030206
US 6624305	B2	20030923		
NO 2003002132	A	19981218	NO 2003-2132	20030512
NO 2003002133	A	19981218	NO 2003-2133	20030512
NO 2003002134	A	19981218	NO 2003-2134	20030512

PRIORITY APPLN. INFO.:

US 1996-673712	A	19960621
WO 1996-US16972	W	19961022
US 1998-61401	A3	19980416
US 1999-375587	A3	19990817
US 2000-678192	A3	20001004
US 2002-180678	A3	20020626

OTHER SOURCE(S): CASREACT 128:102088; MARPAT 128:102088

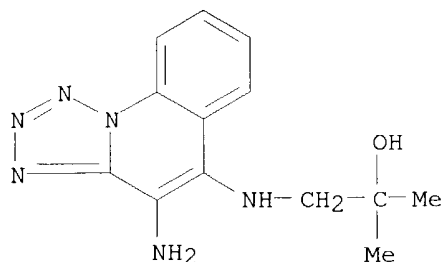
AB Tetrazolo[1,5-a]quinolin-5-ol (prepn. given) was nitrated and the product O-sulfonated to give, after amination and redn., N5-(2-methylpropyl)tetrazolo[1,5-a]quinolin-4,5-diamine which was cyclocondensed with (EtO)2CHOAc and the product treated with (Ph)3P to give 1-(2-methylpropyl)-4-(triphenylphosphoranylidene)amino-1H-imidazo[4,5-c]quinoline. The latter was hydrolyzed to a title compd.

IT 200198-38-5P 201031-00-7P 201031-02-9P

RL: IMF (Industrial manufacture); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
 (process for prep. 1H-imidazo[4,5-c]quinolin-4-amines)

RN 200198-38-5 CAPLUS

CN 2-Propanol, 1-[(4-aminotetrazolo[1,5-a]quinolin-5-yl)amino]-2-methyl-
 (9CI) (CA INDEX NAME)

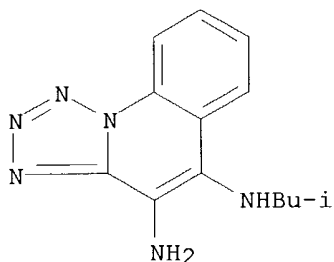


RN 201031-00-7 CAPLUS

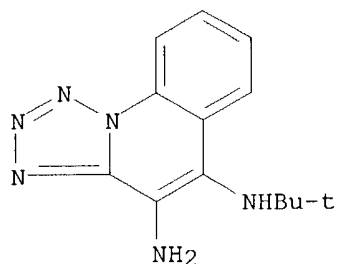
CN Tetrazolo[1,5-a]quinoline-4,5-diamine, N5-(2-methylpropyl)- (9CI) (CA

10/624,014

INDEX NAME)



RN 201031-02-9 CAPLUS
CN Tetrazolo[1,5-a]quinoline-4,5-diamine, N5-(1,1-dimethylethyl)- (9CI) (CA
INDEX NAME)

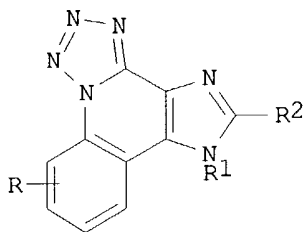
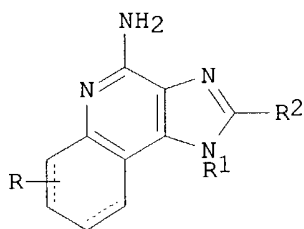


L4 ANSWER 3 OF 3 CAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1997:776031 CAPLUS
DOCUMENT NUMBER: 128:61513
TITLE: Preparation of 6,7,8,9-tetrahydroimidazo[4,5-c]quinolinamines.
INVENTOR(S): Lindstrom, Kyle J.
PATENT ASSIGNEE(S): Minnesota Mining and Mfg. Co., USA
SOURCE: U.S., 9 pp.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5693811	A	19971202	US 1996-669895	19960621
CA 2258262	AA	19971224	CA 1996-2258262	19961022
WO 9748703	A1	19971224	WO 1996-US16913	19961022
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TR, TT, UA, UG, UZ, VN, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
AU 9674658	A1	19980107	AU 1996-74658	19961022
AU 717564	B2	20000330		
EP 912564	A1	19990506	EP 1996-936832	19961022

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EP 912564	B1	20030108		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, NL, SE, PT, IE, FI				
JP 2000512994	T2	20001003	JP 1998-502897	19961022
IL 127347	A1	20020310	IL 1996-127347	19961022
AT 230744	E	20030115	AT 1996-936832	19961022
PT 912564	T	20030430	PT 1996-96936832	19961022
ES 2185808	T3	20030501	ES 1996-936832	19961022
NO 9806001	A	19981218	NO 1998-6001	19981218
KR 2000016782	A	20000325	KR 1998-710392	19981218
PRIORITY APPLN. INFO.:			US 1996-669895	A 19960621
			WO 1996-US16913	W 19961022
OTHER SOURCE(S):			CASREACT 128:61513; MARPAT 128:61513	
GI				

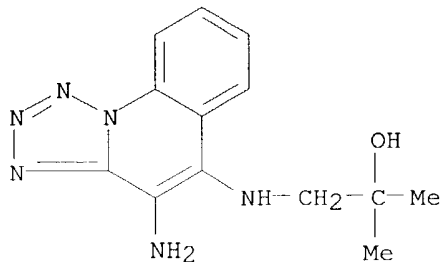


AB Title compds. (I; R = H, alkyl; R1 = H, cycloalkyl, alkyl, hydroxyalkyl, alkoxyalkyl, acyloxyalkyl, benzoyloxy, aminoalkyl, etc.; R2 = H, alkyl, etc.; dotted lines = single bonds), were prep'd. by hydrogenation of I (variables as above; dotted lines = double bonds) or of imidazotetrazoloquinolines (II; variables as above) in strong acid in the presence of PtO₂. Thus, .alpha.,.alpha.-dimethyl-6H-imidazo[4,5-c]tetrazolo[1,5-a]quinoline-6-ethanol (prepn. given) was hydrogenated in CF₃CO₂H over PtO₂ at 50 psi H₂ for 48 h to give 4-amino-.alpha.,.alpha.-dimethyl-6,7,8,9-tetrahydro-1H-imidazo[4,5-c]quinoline-1-ethanol.

IT **200198-38-5P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. of 6,7,8,9-tetrahydroimidazo[4,5-c]quinolinamines)

RN 200198-38-5 CAPLUS

CN 2-Propanol, 1-[(4-aminotetrazolo[1,5-a]quinolin-5-yl)amino]-2-methyl- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 18 THERE ARE 18 CITED REFERENCES AVAILABLE FOR THIS
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

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FILE 'USPATFULL' ENTERED AT 10:49:20 ON 12 JAN 2004
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10/624,014

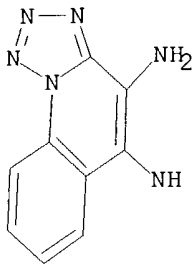
CA INDEXING COPYRIGHT (C) 2004 AMERICAN CHEMICAL SOCIETY (ACS)

FILE 'USPAT2' ENTERED AT 10:49:20 ON 12 JAN 2004

CA INDEXING COPYRIGHT (C) 2004 AMERICAN CHEMICAL SOCIETY (ACS)

=> d que

L2 STR



G1 NH2,NO2

Structure attributes must be viewed using STN Express query preparation.

L3 4 SEA FILE=REGISTRY SSS FUL L2

L5 11 SEA L3

=> d 15 1-11 ibib abs hit

L5 ANSWER 1 OF 11 USPATFULL on STN

ACCESSION NUMBER: 2003:220471 USPATFULL

TITLE: Process for preparing imidazoquinolinamines

INVENTOR(S): Gerster, John F., Woodbury, MN, UNITED STATES

Lindstrom, Kyle J., Houlton, WI, UNITED STATES

PATENT ASSIGNEE(S): 3M Innovative Properties Company (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2003153762	A1	20030814
	US 6624305	B2	20030923
APPLICATION INFO.:	US 2003-360210	A1	20030206 (10)
RELATED APPLN. INFO.:	Division of Ser. No. US 2002-180678, filed on 26 Jun 2002, GRANTED, Pat. No. US 6534654 Division of Ser. No. US 2000-678192, filed on 4 Oct 2000, GRANTED, Pat. No. US 6437131 Division of Ser. No. US 1999-375587, filed on 17 Aug 1999, GRANTED, Pat. No. US 6150523 Division of Ser. No. US 1998-61401, filed on 16 Apr 1998, GRANTED, Pat. No. US 5998619 Continuation of Ser. No. US 1996-673712, filed on 21 Jun 1996, GRANTED, Pat. No. US 5741908		
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	APPLICATION		
LEGAL REPRESENTATIVE:	3M INNOVATIVE PROPERTIES COMPANY, PO BOX 33427, ST. PAUL, MN, 55133-3427		
NUMBER OF CLAIMS:	42		
EXEMPLARY CLAIM:	1		
LINE COUNT:	1028		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB A process for preparing 1H-imidazo[4,5-c]quinolin-4-amines is disclosed. The process involves reacting a 6H-imidazo[4,5-c]tetrazolo[1,5-a]quinoline with triphenylphosphine and hydrolyzing the product thereof.

10/624,014

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

IT 72470-51-0P 77177-26-5P 77177-27-6P, Tetrazolo[1,5-a]quinolin-5-ol
112668-45-8P 200198-35-2P 200198-37-4P **200198-38-5P**
200198-39-6P 200198-40-9P 201030-95-7P 201030-96-8P 201030-97-9P
201030-98-0P 201030-99-1P **201031-00-7P** 201031-01-8P
201031-02-9P 201031-03-0P 201031-04-1P
(process for prepg. 1H-imidazo[4,5-c]quinolin-4-amines)

L5 ANSWER 2 OF 11 USPATFULL on STN

ACCESSION NUMBER: 2003:188723 USPATFULL
TITLE: PROCESS FOR PREPARING IMIDAZOQUINOLINAMINES
INVENTOR(S): Gerster, John F., Woodbury, MN, UNITED STATES
Lindstrom, Kyle J., Houlton, WI, UNITED STATES
PATENT ASSIGNEE(S): 3M Innovative Properties Company (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2003130516	A1	20030710
	US 6613902	B2	20030902
APPLICATION INFO.:	US 2003-352606	A1	20030128 (10)
RELATED APPLN. INFO.:	Division of Ser. No. US 2002-180678, filed on 26 Jun 2002, GRANTED, Pat. No. US 6534654 Division of Ser. No. US 2000-678192, filed on 4 Oct 2000, GRANTED, Pat. No. US 6437131 Division of Ser. No. US 1999-375587, filed on 17 Aug 1999, GRANTED, Pat. No. US 6150523 Division of Ser. No. US 1998-61401, filed on 16 Apr 1998, GRANTED, Pat. No. US 5998619 Continuation of Ser. No. US 1996-673712, filed on 21 Jun 1996, GRANTED, Pat. No. US 5741908		
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	APPLICATION		
LEGAL REPRESENTATIVE:	Attention: Ted K. Ringsred, 3M Office of Intellectual Property Counsel, P.O. Box 33427, St. Paul, MN, 55133-3427		
NUMBER OF CLAIMS:	42		
EXEMPLARY CLAIM:	1		
LINE COUNT:	1030		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB A process for preparing 1H-imidazo[4,5-c]quinolin-4-amines is disclosed. The process involves reacting a 6H-imidazo[4,5-c]tetrazolo[1,5-a]quinoline with triphenylphosphine and hydrolyzing the product thereof.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

IT 72470-51-0P 77177-26-5P 77177-27-6P, Tetrazolo[1,5-a]quinolin-5-ol
112668-45-8P 200198-35-2P 200198-37-4P **200198-38-5P**
200198-39-6P 200198-40-9P 201030-95-7P 201030-96-8P 201030-97-9P
201030-98-0P 201030-99-1P **201031-00-7P** 201031-01-8P
201031-02-9P 201031-03-0P 201031-04-1P
(process for prepg. 1H-imidazo[4,5-c]quinolin-4-amines)

L5 ANSWER 3 OF 11 USPATFULL on STN

ACCESSION NUMBER: 2002:330440 USPATFULL
TITLE: Process for preparing imidazoquinolinamines
INVENTOR(S): Gerster, John F., Woodbury, MN, UNITED STATES
Lindstrom, Kyle J., Houlton, WI, UNITED STATES
PATENT ASSIGNEE(S): 3M Innovative Properties Company (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2002188127	A1	20021212
	US 6534654	B2	20030318

10/624,014

APPLICATION INFO.: US 2002-180678 A1 20020626 (10)
RELATED APPLN. INFO.: Division of Ser. No. US 2000-678192, filed on 4 Oct
2000, GRANTED, Pat. No. US 6437131 Division of Ser. No.
US 1999-375587, filed on 17 Aug 1999, GRANTED, Pat. No.
US 6150523 Division of Ser. No. US 1998-61401, filed on
16 Apr 1998, GRANTED, Pat. No. US 5998619 Continuation
of Ser. No. US 1996-673712, filed on 21 Jun 1996,
GRANTED, Pat. No. US 5741908

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: Attention: Ted K. Ringsred, 3M Office of Intellectual
Property Counsel, P.O. Box 33427, St. Paul, MN,
55133-3427

NUMBER OF CLAIMS: 42
EXEMPLARY CLAIM: 1
LINE COUNT: 1031

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB A process for preparing 1H-imidazo[4,5-c]quinolin-4-amines is disclosed.
The process involves reacting a 6H-imidazo[4,5-c]tetrazolo[1,5-
a]quinoline with triphenylphosphine and hydrolyzing the product thereof.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

IT 72470-51-0P 77177-26-5P 77177-27-6P, Tetrazolo[1,5-a]quinolin-5-ol
112668-45-8P 200198-35-2P 200198-37-4P **200198-38-5P**
200198-39-6P 200198-40-9P 201030-95-7P 201030-96-8P 201030-97-9P
201030-98-0P 201030-99-1P **201031-00-7P** 201031-01-8P
201031-02-9P 201031-03-0P 201031-04-1P
(process for prep. 1H-imidazo[4,5-c]quinolin-4-amines)

L5 ANSWER 4 OF 11 USPATFULL on STN
ACCESSION NUMBER: 2002:209682 USPATFULL
TITLE: Process for preparing imidazoquinolinamines
INVENTOR(S): Gerster, John F., Woodbury, MN, United States
Lindstrom, Kyle J., Houlton, WI, United States
PATENT ASSIGNEE(S): 3M Innovative Properties Company, St. Paul, MN, United
States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6437131	B1	20020820
APPLICATION INFO.:	US 2000-678192		20001004 (9)
RELATED APPLN. INFO.:	Division of Ser. No. US 1999-375587, filed on 17 Aug 1999, now patented, Pat. No. US 6150523 Division of Ser. No. US 1998-61401, filed on 16 Apr 1998, now patented, Pat. No. US 5998619 Continuation of Ser. No. US 1996-673712, filed on 21 Jun 1996, now patented, Pat. No. US 5741908		
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	GRANTED		
PRIMARY EXAMINER:	Morris, Patricia L.		
LEGAL REPRESENTATIVE:	Howard, MarySusan, Ringsred, Ted K., Sprague, Robert W.		
NUMBER OF CLAIMS:	2		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	0 Drawing Figure(s); 0 Drawing Page(s)		
LINE COUNT:	844		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB A process for preparing 1H-imidazo[4,5-c]quinolin-4-amines is disclosed.
The process involves reacting a 6H-imidazo[4,5-c]tetrazolo[1,5-
a]quinoline with triphenylphosphine and hydrolyzing the product thereof

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

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IT 72470-51-0P 77177-26-5P 77177-27-6P, Tetrazolo[1,5-a]quinolin-5-ol
112668-45-8P 200198-35-2P 200198-37-4P **200198-38-5P**
200198-39-6P 200198-40-9P 201030-95-7P 201030-96-8P 201030-97-9P
201030-98-0P 201030-99-1P **201031-00-7P** 201031-01-8P
201031-02-9P 201031-03-0P 201031-04-1P
(process for prep. 1H-imidazo[4,5-c]quinolin-4-amines)

L5 ANSWER 5 OF 11 USPATFULL on STN
ACCESSION NUMBER: 2000:157572 USPATFULL
TITLE: Process for preparing imidazoquinolinamines
INVENTOR(S): Gerster, John F., Woodbury, MN, United States
Lindstrom, Kyle J., Houlton, WI, United States
PATENT ASSIGNEE(S): 3M Innovative Properties Company, St. Paul, MN, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6150523		20001121
APPLICATION INFO.:	US 1999-375587		19990817 (9)
RELATED APPLN. INFO.:	Division of Ser. No. US 1998-61401, filed on 16 Apr 1998, now patented, Pat. No. US 5998619 which is a continuation of Ser. No. US 1996-673712, filed on 21 Jun 1996, now patented, Pat. No. US 5741908		
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	Granted		
PRIMARY EXAMINER:	Rotman, Alan L.		
LEGAL REPRESENTATIVE:	Howard, MarySusan, Ringsred, Ted K., Sprague, Robert W.		
NUMBER OF CLAIMS:	6		
EXEMPLARY CLAIM:	1		
LINE COUNT:	869		
CAS INDEXING IS AVAILABLE FOR THIS PATENT.			
AB	A process for preparing 1H-imidazo[4,5-c]quinolin-4-amines is disclosed. The process involves reacting a 6H-imidazo[4,5-c]tetrazolo[1,5-a]quinoline with triphenylphosphine and hydrolyzing the product thereof.		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

IT 72470-51-0P 77177-26-5P 77177-27-6P, Tetrazolo[1,5-a]quinolin-5-ol
112668-45-8P 200198-35-2P 200198-37-4P **200198-38-5P**
200198-39-6P 200198-40-9P 201030-95-7P 201030-96-8P 201030-97-9P
201030-98-0P 201030-99-1P **201031-00-7P** 201031-01-8P
201031-02-9P 201031-03-0P 201031-04-1P
(process for prep. 1H-imidazo[4,5-c]quinolin-4-amines)

L5 ANSWER 6 OF 11 USPATFULL on STN
ACCESSION NUMBER: 1999:160235 USPATFULL
TITLE: Process for preparing imidazoquinolinamines
INVENTOR(S): Gerster, John F., Woodbury, MN, United States
Lindstrom, Kyle J., Houlton, WI, United States
PATENT ASSIGNEE(S): 3M Innovative Properties Company, St. Paul, MN, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5998619		19991207
APPLICATION INFO.:	US 1998-61401		19980416 (9)
RELATED APPLN. INFO.:	Continuation of Ser. No. US 1996-673712, filed on 21 Jun 1996, now patented, Pat. No. US 5741908		
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	Granted		
PRIMARY EXAMINER:	Rotman, Alan L.		
LEGAL REPRESENTATIVE:	Howard, MarySusan, Ringsred, Ted K., Sprague, Robert W.		

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NUMBER OF CLAIMS: 5
EXEMPLARY CLAIM: 1
LINE COUNT: 851

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB A process for preparing 1H-imidazo[4,5-c]quinolin-4-amines is disclosed.
The process involves reacting a 6H-imidazo[4,5-c]tetrazolo[1,5-a]quinoline with triphenylphosphine and hydrolyzing the product thereof.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

IT 72470-51-0P 77177-26-5P 77177-27-6P, Tetrazolo[1,5-a]quinolin-5-ol
112668-45-8P 200198-35-2P 200198-37-4P **200198-38-5P**
200198-39-6P 200198-40-9P 201030-95-7P 201030-96-8P 201030-97-9P
201030-98-0P 201030-99-1P **201031-00-7P** 201031-01-8P
201031-02-9P 201031-03-0P 201031-04-1P
(process for prep. 1H-imidazo[4,5-c]quinolin-4-amines)

L5 ANSWER 7 OF 11 USPATFULL on STN

ACCESSION NUMBER: 1998:42473 USPATFULL
TITLE: Process for repairing imidazoquinolinamines
INVENTOR(S): Gerster, John F., Woodbury, MN, United States
Lindstrom, Kyle J., Houlton, WI, United States
PATENT ASSIGNEE(S): Minnesota Mining and Manufacturing Company, St. Paul,
MN, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5741908		19980421
APPLICATION INFO.:	US 1996-673712		19960621 (8)
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	Granted		
PRIMARY EXAMINER:	Rotman, Alan L.		
LEGAL REPRESENTATIVE:	Howard, MarySusan, Ringsred, Ted K., Kirn, Walter N.		
NUMBER OF CLAIMS:	15		
EXEMPLARY CLAIM:	1		
LINE COUNT:	921		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB A process for preparing 1H-imidazo[4,5-c]quinolin-4-amines is disclosed.
The process involves reacting a 6H-imidazo[4,5-c]tetrazolo[1,5-a]quinoline with triphenylphosphine and hydrolyzing the product thereof.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

IT 72470-51-0P 77177-26-5P 77177-27-6P, Tetrazolo[1,5-a]quinolin-5-ol
112668-45-8P 200198-35-2P 200198-37-4P **200198-38-5P**
200198-39-6P 200198-40-9P 201030-95-7P 201030-96-8P 201030-97-9P
201030-98-0P 201030-99-1P **201031-00-7P** 201031-01-8P
201031-02-9P 201031-03-0P 201031-04-1P
(process for prep. 1H-imidazo[4,5-c]quinolin-4-amines)

L5 ANSWER 8 OF 11 USPATFULL on STN

ACCESSION NUMBER: 97:112635 USPATFULL
TITLE: Process for preparing tetrahydroimidazoquinolinamines
INVENTOR(S): Lindstrom, Kyle J., Houlton, WI, United States
PATENT ASSIGNEE(S): Minnesota Mining and Manufacturing Company, St. Paul,
MN, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5693811		19971202
APPLICATION INFO.:	US 1996-669895		19960621 (8)
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	Granted		

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PRIMARY EXAMINER: Ivy, C. Warren
ASSISTANT EXAMINER: Smith, Lyman H.
LEGAL REPRESENTATIVE: Griswold, Gary L., Kirn, Walter N., Ringsred, Ted K.
NUMBER OF CLAIMS: 14
EXEMPLARY CLAIM: 1
LINE COUNT: 622

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB A process for preparing 6, 7, 8, 9-tetrahydro-1H-imidazo[4,5-c]quinolin-4-amines is disclosed. The process involves the reduction of a 1H-imidazo[4,5-c]quinolin-4-amine or of a 6H-imidazo[4,5-c]tetrazolo[1,5-a]quinoline.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

IT 525-76-8P, 2-Methyl-4-oxo-3,1-benzoxazine 72470-51-0P 77177-26-5P
77177-27-6P, Tetrazolo[1,5-a]quinolin-5-ol 200198-35-2P 200198-37-4P
200198-38-5P 200198-39-6P 200198-40-9P
(prepn. of 6,7,8,9-tetrahydroimidazo[4,5-c]quinolinamines)

L5 ANSWER 9 OF 11 USPAT2 on STN

ACCESSION NUMBER: 2003:220471 USPAT2
TITLE: Process for preparing imidazoquinolinamines
INVENTOR(S): Gerster, John F., Woodbury, MN, United States
Lindstrom, Kyle J., Houlton, WI, United States
PATENT ASSIGNEE(S): 3M Innovative Properties Company, St. Paul, MN, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6624305	B2	20030923
APPLICATION INFO.:	US 2003-360210		20030206 (10)
RELATED APPLN. INFO.:	Division of Ser. No. US 2002-180678, filed on 26 Jun 2002, now patented, Pat. No. US 6534654 Division of Ser. No. US 2000-678192, filed on 4 Oct 2000, now patented, Pat. No. US 6437131 Division of Ser. No. US 1999-375587, filed on 17 Aug 1999, now patented, Pat. No. US 6150523 Division of Ser. No. US 1998-61401, filed on 16 Apr 1998, now patented, Pat. No. US 5998619 Continuation of Ser. No. US 1996-673712, filed on 21 Jun 1996, now patented, Pat. No. US 5741908		

DOCUMENT TYPE: Utility
FILE SEGMENT: GRANTED
PRIMARY EXAMINER: Morris, Patricia L.
LEGAL REPRESENTATIVE: Ersfeld, Dean A.
NUMBER OF CLAIMS: 8
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 0 Drawing Figure(s); 0 Drawing Page(s)
LINE COUNT: 896

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB A process for preparing 1H-imidazo[4,5-c]quinolin-4-amines is disclosed. The process involves reacting a 6H-imidazo[4,5-c]tetrazolo[1,5-a]quinoline with triphenylphosphine and hydrolyzing the product thereof.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

IT 72470-51-0P 77177-26-5P 77177-27-6P, Tetrazolo[1,5-a]quinolin-5-ol
112668-45-8P 200198-35-2P 200198-37-4P **200198-38-5P**
200198-39-6P 200198-40-9P 201030-95-7P 201030-96-8P 201030-97-9P
201030-98-0P 201030-99-1P **201031-00-7P** 201031-01-8P
201031-02-9P 201031-03-0P 201031-04-1P
(process for prepg. 1H-imidazo[4,5-c]quinolin-4-amines)

L5 ANSWER 10 OF 11 USPAT2 on STN

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ACCESSION NUMBER: 2003:188723 USPAT2
TITLE: Process for preparing imidazoquinolinamines
INVENTOR(S): Gerster, John F., Woodbury, MN, United States
Lindstrom, Kyle J., Houlton, WI, United States
PATENT ASSIGNEE(S): 3M Innovative Properties Company, St. Paul, MN, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6613902	B2	20030902
APPLICATION INFO.:	US 2003-352606		20030128 (10)
RELATED APPLN. INFO.:	Division of Ser. No. US 2002-180678, filed on 26 Jun 2002, now patented, Pat. No. US 6534654 Division of Ser. No. US 2000-678192, filed on 4 Oct 2000, now patented, Pat. No. US 6437131 Division of Ser. No. US 1999-375587, filed on 17 Aug 1999, now patented, Pat. No. US 6150523 Division of Ser. No. US 1998-61401, filed on 16 Apr 1998, now patented, Pat. No. US 5998619 Continuation of Ser. No. US 1996-673712, filed on 21 Jun 1996, now patented, Pat. No. US 5741908		
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	GRANTED		
PRIMARY EXAMINER:	Morris, Patricia L.		
LEGAL REPRESENTATIVE:	Ersfeld, Dean A.		
NUMBER OF CLAIMS:	1		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	0 Drawing Figure(s); 0 Drawing Page(s)		
LINE COUNT:	867		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB A process for preparing 1H-imidazo[4,5-c]quinolin-4-amines is disclosed. The process involves reacting a 6H-imidazo[4,5-c]tetrazolo[1,5-a]quinoline with triphenylphosphine and hydrolyzing the product thereof.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

IT 72470-51-0P 77177-26-5P 77177-27-6P, Tetrazolo[1,5-a]quinolin-5-ol
112668-45-8P 200198-35-2P 200198-37-4P **200198-38-5P**
200198-39-6P 200198-40-9P 201030-95-7P 201030-96-8P 201030-97-9P
201030-98-0P 201030-99-1P **201031-00-7P** 201031-01-8P
201031-02-9P 201031-03-0P 201031-04-1P
(process for prep. 1H-imidazo[4,5-c]quinolin-4-amines)

L5 ANSWER 11 OF 11 USPAT2 on STN

ACCESSION NUMBER: 2002:330440 USPAT2
TITLE: Process for preparing imidazoquinolinamines
INVENTOR(S): Gerster, John F., Woodbury, MN, United States
Lindstrom, Kyle J., Houlton, WI, United States
PATENT ASSIGNEE(S): 3M Innovative Properties Company, St. Paul, MN, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6534654	B2	20030318
APPLICATION INFO.:	US 2002-180678		20020626 (10)
RELATED APPLN. INFO.:	Division of Ser. No. US 2000-678192, filed on 4 Oct 2000, now patented, Pat. No. US 6437131 Division of Ser. No. US 1999-375587, filed on 17 Aug 1999, now patented, Pat. No. US 6150523 Division of Ser. No. US 1998-61401, filed on 16 Apr 1998, now patented, Pat. No. US 5998619 Continuation of Ser. No. US 1996-673712, filed on 21 Jun 1996, now patented, Pat. No. US 5741908		
DOCUMENT TYPE:	Utility		

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FILE SEGMENT: GRANTED
PRIMARY EXAMINER: Morris, Patricia L.
LEGAL REPRESENTATIVE: Ersfeld, Dean A.
NUMBER OF CLAIMS: 6
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 0 Drawing Figure(s); 0 Drawing Page(s)
LINE COUNT: 887

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB A process for preparing 1H-imidazo[4,5-c]quinolin-4-amines is disclosed.
The process involves reacting a 6H-imidazo[4,5-c]tetrazolo[1,5-a]quinoline with triphenylphosphine and hydrolyzing the product thereof.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

IT 72470-51-0P 77177-26-5P 77177-27-6P, Tetrazolo[1,5-a]quinolin-5-ol
112668-45-8P 200198-35-2P 200198-37-4P **200198-38-5P**
200198-39-6P 200198-40-9P 201030-95-7P 201030-96-8P 201030-97-9P
201030-98-0P 201030-99-1P **201031-00-7P** 201031-01-8P
201031-02-9P 201031-03-0P 201031-04-1P
(process for prep. 1H-imidazo[4,5-c]quinolin-4-amines)